Washington State Department of Health
Construction Review Services
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www.doh.wa.gov/hsqa/fsl/crs.htm

REVIEW CHECKLIST FOR A SPA TYPE POOL

This checklist is provided to facilitate department plan review of pool facilities. Please provide the information requested and complete the appropriate section for the spa facility design.

Plans and specifications are to be submitted by the design engineer or architect with their cover letter and be stamped with their seal. Plans are to be drawn to scale in sufficient detail to illustrate construction. Plans shall include:

I. POOL DESIGN PLANS

1. A vicinity sketch noting pool in relation to surrounding area and facilities.
2. Both plan and cross sectional views of the pool. Cross sectional views should provide information on the radius of curvature of the pool at shallow, breakpoint and deep ends of the pool.
3. Detailed view of the equipment room and equipment within it noting sufficient room is provided to access equipment for proper operation and maintenance.
4. Dimensional drawings of pool bottom and sidewalls.
5. Specifications on required equipment components.
6. Piping schematic showing piping, pipe size, inlets, main drains, overflow channel or skimmers, vacuum fittings and all other appurtenances connected to the pool piping system.
7. Details on barrier construction.
8. Details on decking dimensions noting slope direction and location of drains.
9. A functional program describing the staffing levels and uses of this pool.

II. GENERAL POOL INFORMATION

Name of facility: _____CRS#_____
Location:_____City:_____
Owner's Name:_____Phone:_____
Owner's address_____City:_____
Pool contractor's name_____Phone:_____
Design Engineer or Architect name:_____ Phone:_____

New pool ☐ Modification ☐ Addition ☐ Outdoor ☐ Indoor ☐

III. SPECIFIC SPA POOL DESIGN CHARACTERISTICS

- Pool shape: Rectangular☐ Oval☐ Other ☐ Specify_____
- Pool dimensions: Length _____ft., Width _____ft., or Diameter _____ft. Maximum pool depth: _____. Perimeter _____ft. Total surface area _____ $ft.^2$
- Pool location is > ____ ft. from any pump house, trees or other structures, or otherwise protected from access.
- Pool surface structure material: specify: _____
- Spa Pool decking construction material: specify:_____;
- Type of non-slip finish provided _____.
- Is slope of deck drainage noted on plans?_____. Note rate of slope ____/ft.
- Spa pool decking: Note: decking provided around perimeter of spa. Note if spa is elevated above the decking. If spa is greater than 12 inches above the pool deck and less than 40 inches, ensure conformance with spa wall design. If spa is over 40 inches above deck, it is necessary to provide a minimum 4-foot deck around the perimeter.

Barrier (fencing) protection:

- Note minimum barrier height _____.
- Note type of construction of barrier with information on maximum opening widths to prevent means for access. If greater than 45 inches between tops of horizontal members of barrier, can go maximum width of openings so as not to allow a four-inch sphere to pass. If tops of horizontal members are less than 45 inches apart maximum opening width is 1 & 3/4 inches.
- Height to access latch is _____ inches. Please specify barrier construction.
- Is gate or door designed to be self-closing, self-latching?_____. Are gates or doors lockable for periods of non-use?____.

- Specify maximum bather capacity (maximum # of people at one time). _____ people. (Provided overflow system will remain operative to maintain skimming action and not created a flooded suction condition, the number of people within the pool can be 1 person for every 4 square feet of surface area.)

- Specify maximum bather load (maximum # of people to use spa in a one hour time period). _____ People. Using bather capacity figure times 20 gallons, compute volume of water in spa to be displaced and still allow proper operation of the overflow operating system (skimmer or overflow trough with balancing tank). In determining bather load, note turnover rate based on graph 040.1 in spa design regulations. _____ Minutes.

- Turnover rate for this spa is ____ minutes.

Stairs:

- Are locations of ladders or steps noted on the drawings?☐
- Where stairs are provided note: Height of steps____"; width of steps____"; location of handrail on drawing? ____.
- Is a contrasting color provided on stair tread edge and specified in the plans? ☐

Recalculation system:

- Minimum flow needed to maintain ___ minute turnover is ____ gpm.
- Provide appropriate calculations and assumptions to determine both pump rates:
- Pump capacity is designed to produce ____ gpm with clean filter and ____ gpm with filter dirty (just prior to backwash). Is copy of pump curve provided in specifications? ☐ Is pump above☐ or below ☐pool water level?
- Is line size of recirculation system provided on the drawings, with location of all valves to provide for proper maintenance and use of equipment?☐ Are inlets and outlets of pool located on the plans?☐
- Number of inlets?_____. Flow capacity designed for each inlet is _____ gpm.
- Number of outlets?_____.
- Is a minimum of two main drains indicated on the plans? ☐
- Note provisions for routine draining of the entire spa volume?_____
- Are any of the main drains provided on the vertical wall?☐ If so, are provisions made for these drains to prevent hair entrapment? Please specify.
- Specify number of square inches of opening on each main drain._____ $in.^2$.
- Specify maximum width of openings on main drain. _____ (Maximum of 1/2 inch).
- Determine maximum velocity through main drains assuming 100 % of maximum pump flow is going through the drains. ____fps (Maximum 1.5fps).
- Note maximum flow through all main drains, which could occur if all the water for all pumps are recirculating through the main drains. _____ fps (maximum 1.5 fps).
- Maximum pipe flow through suction or valved discharge lines is ____ fps. Maximum pipe flow through discharge lines, downstream from any valved areas is ____ fps.

- Name of public water supply serving this pool facility._____

Equipment room:

- Does drawing of equipment room adequately demonstrate that there is a minimum three foot working area to access equipment for proper operation?☐.
- Are drains specified in equipment room?☐
- Lighting (min 20 ftcdl)____, ventilation___,

- Is room lockable?☐.
- One hour occupancy separation if over 4000,000 BTU ☐

TREATMENT SYSTEM:

Pump & strainer:

- Is a pump strainer provided? ☐
- Is any valving needed and shown to isolate strainer for routine maintenance? ☐
- Does pump have self-priming capability if above pool water level? ☐

Filter:

- Type: DE☐ Sand☐, Cartridge☐, Other☐(specify)_____.
- Specify type of filter._____ Is it NSF approved?☐.
- Number of square feet per filter is _____ SF.
- Number of filters used _____.
- Maximum filter application rate with pump clean is ____g/SF, Minimum application rate with filter dirty is ____g/SF.
- Are two gauges provided to measure differential pressure across the filter?☐. Are locations noted in plans?☐.

- If cartridge filter systems are being used it is necessary to specify that filter bypass valves will be sealed in permanently closed position. ☐

- Note location on plans and range of flowmeter in specifications._____

- Are means provided for air relief on filters?____. If using a separation tank with a DE filter, are instructions provided to warn operator to release air prior to opening☐

Disinfection:

- Type: Chlorine☐; Bromine☐; Other☐(specify)_____.
- Note type of material being fed: gas ☐; liquid ☐; solid ☐.
- Note number of pounds of disinfectant able to be added per day with the feeding equipment. _____ pounds/day.
- Note type of feeding equipment to be installed._____.
- If using liquid or solid feed material, note that it is NSF approved._____.
- If using chlorine gas:

1. Note location of separate sealed room, with door opening to out-of-doors on plans. Not prevailing wind direction in relation to the pool facility (including air intake structures for buildings) and surrounding area.
2. Provide: Sign on door.☐
3. Mechanical exhaust at one air change per minute, remote or door activated switch to turn on fan, means to exhaust from floor of room, means for make-up air to room across breathing zone of operator, screened chlorinator vent,
4. Note type of breathing protection (self-contained breathing apparatus).
5. Vacuum injection chlorine systems, with vacuum-actuated cylinder regulators, integral backflow and anti-siphon protection at the injector.
6. Taring scales, means for automatic shutoff when pool flow is interrupted, means to store cylinders securely, valve-stem cylinder wrench on cylinders, note size of cylinders to be used.

Chemical feeders:

- Are feeders provided for controlling pH? (Required on pools 10,000 gals or more, or if feeding caustic soda or CO_2).
- Specifications on the feeding equipment attached?☐

Heaters:

- If using heater requiring pilot light, is pilot light readily accessible? Specify equipment to be installed in accordance with NEC and UMC.

Ventilation:

- On indoor pools, specify if facility will be installed in conformance with ASHRAE standards for pool facilities.☐ See the WAC specific to facility for additional or different requirements.

OTHER PROVISIONS:

Testing equipment:

- Provide information on type of testing equipment provided in conjunction with water quality and chemistry control of pool water.

Chemical storage:

- Provide information on placement of chemicals, to ensure storage is in conjunction with manufacturer's recommendations.

Restrooms, locker rooms & plumbing fixtures:

- Note location and size of locker room facility and location and number of plumbing fixtures required.
- Note provisions to prevent water temperature in showers from exceeding 110 F.
- Note location of drains within facility and type of non-slip surface on floor.

Lighting:

- Provide information on minimum lighting to be provided around the pool & deck, locker room & equip. room.
- In facilities with locker rooms and walkway areas, note protective shielding provided on lights.
- Note specifications on emergency lighting on indoor pool facilities.

Emergency equipment: Note equipment provided including:

- Phone or other emergency medical service response means. See specific facility type WAC for additional or different requirements. ☐
- First aid kit.☐
- Two blankets.☐
- Emergency shut off switch to turn off all spa pool pumps (within 20 ft of spa) with audible alarm when switch is turned on.☐

Signs:

- Note provisions to provide signage in conformance with regulation. Providing a copy of the proposed language is desired.

Foodservice:

- If planned, facilities must comply with Chapter 246-320 WAC Foodservice sanitation.
- Have plans been submitted and approved. Yes ☐ No ☐ NA ☐

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